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BLACK BOARD

IN THE

PRIMARY SCHOOL.

A MANUAL FOR TEACHERS,

TO

ILLUSTRATE SOME VALUABLE METHODS OF INTERESTING AND  
INSTRUCTING YOUNG CHILDREN.

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BY THE AUTHOR OF

'My Little Primer,' 'My First School-Book,' and  
'Spelling and Thinking Combined.'

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*Isaac F. Barnard,*

BOSTON:

PERKINS & MARVIN.

1841.

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Entered according to Act of Congress, in the year 1841,

By PERKINS & MARVIN,

In the Clerk's Office of the District Court of the District of  
Massachusetts.

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TO  
THE PRIMARY SCHOOL TEACHERS  
OF  
BOSTON,

THIS MANUAL,

IS WITH MUCH REGARD DEDICATED BY

THE AUTHOR.





## P R E F A C E.

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ALTHOUGH the black board for the primary school is strongly recommended in many works on education, yet none of them furnish examples and illustrations showing in detail the methods of using it. It has been thought that a manual, prepared with reference to this deficiency, would be acceptable to teachers. As such the following pages are offered, believing that they will prove to be an aid in making the black board what it was designed to be—a *luminous* object in the school.

## BLACK BOARD REQUISITES.

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THE board should be as large as existing liberality will permit—the larger, the better.

In smoothness and softness it should resemble as nearly as possible a good slate. The paint should be so prepared that there will be no gloss.

The *brass holders* for the crayon or chalk, which are to be found at the stores, are good in many respects, and especially in that of their requiring the same position of the fingers as in holding a pen.

The *pointing stick* should be a suitable one, and used only for this particular purpose.

A *rubber*, of cloth, wash-leather, or sponge, should always be at hand.

The following is an extract from an article in the *Common School Journal*, which we know to have been written by one who has the reputation of being an able and experienced teacher.

#### ON THE USE OF THE BLACK-BOARD.

MR. EDITOR.—Will you give me a little corner in your truly estimable journal, to say a word in behalf of that very simple and incomparably valuable, though much-neglected appendage of the school-room, the *black-board*? I am inclined to think its value, as an accompaniment of the school-room, is little known. I have been in several schools, this winter, and heard from many others, and in only one have I learned that any considerable use is made of it. This winter, while on a visit to one of the central towns in Middlesex County, I put the question to the clergyman, one of the school committee, whether their schools were furnished with black-boards? “No,” he replied; “it is of no use to get them. If we had black-boards, we have no teachers that can use them to advantage.” I was at once astonished and mortified at such an announcement.

“Schools without black-boards, and without teachers that can use them! I should feel in the school-room, without the black-board, as though the *last plank* had been taken from under me!” exclaimed I.

I am no theorist, Mr. Editor, but a plain working-man, who, from necessity, or inclination, or both, or some other cause, have been made familiar with the scenes, trials, wants, modes, and expedients of the school-room, for many years. I speak from long experience, when I testify to the utilities of this simple, homely piece of school furniture. I would call the attention of my worthy coadjutors in education, throughout the Commonwealth, members of school committees and teachers,

to its merits. For children and teachers' sake, for learning's sake, for humanity's sake, would that I could place one of them in every school in our State!

The inventor or introducer of the black-board system deserves to be ranked among the best contributors to learning and science, if not among the greatest benefactors of mankind; and so he will be regarded by all who know its merits, and are familiar with school-room trials.

Let every town put in each of its school-houses, next summer, a good black-board, and a good teacher, "*who can use it*;" and the effect will be about the same as doubling the number of teachers and school hours, in that town, or adding a hundred per cent. to the school tax, and all the effective means of education which they possess. \* \* \* \*

There is no school in which it is more useful than in infantile and primary schools. In no way can a teacher of such schools entertain and profit her pupils more than by the black-board,—marking, drawing, and explaining, herself, and allowing and teaching her pupils to mark and draw the same things. Give them certain forms or letters to imitate, and they will entertain and teach themselves by the half hour together; which is far better than pinching each other, pulling hair, or doing mischief. \*

\* \* \* I am sure that not only is the black-board of great utility, but that in the school-room there is no substitute for it. \* \* \*

I would engage to pay for every black-board introduced into our district schools, which, judiciously used, does not almost work miracles.

THE

# BLACK BOARD

IN

THE PRIMARY SCHOOL.

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## ARITHMETIC.

---

*The teacher, after making a single mark on the board, thus,*

I

*inquires,*

How many marks have I made ?

*Adding another mark,*

II

How many marks have I made ?

*Adding the brace and figure, and pointing to the latter,*

II  
2

What is that figure ?

How many ones are there in two ?

2

Which is the most, one or two?  
 Which is the least, one or two?  
 How much more is two than one?  
 What is one half of two?  
 What is twice one?

*After rubbing off the brace and figure, and adding another mark,*

|||

How many marks have I made?

*Adding the brace and figure, and pointing to the latter,*

|||  
 ~~~  
 3

What is that figure?  
 How many ones in three?  
 Which is the most, two or three?  
 Which is the least, two or three?  
 How much more is three than two?  
 How much more is three than one?

---

What two numbers will make three?

*After rubbing off the brace and figure, and making another mark,*

||||

How many marks have I made ?

*Adding the figure, &c.*

||||  
 ~~~~~  
 4

What is that figure ?

How many ones in four ?

Which is the most, three or four ?

Which is the least, three or four ?

How much more is four than three ?

How much more is four than two ?

How much more is four than one ?

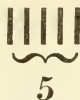
What is one half of four ?

————

How many twos in four ?

What two numbers will make four ?

What other two numbers will make four ?



How many marks have I made ? \*

What is that figure ?

How many ones in five ?

Which is the most, four or five ?

Which is the least, four or five ?

How much more is five than four ?

than three ?

than two ?

than one ?



What two numbers will make five ?

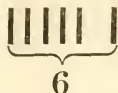
What other two numbers will make five ?

What three numbers will make five ?

---

\* This question should be put and answered before the *figure* is written. So in all subsequent exercises.





How many marks ?

What figure is that ?

How many ones in six ?

Which is the most, five or six ?

Which is the least, five or six ?

How much more is six than five ?

than four ?

than three ?

than two ?

than one ?

---

How many threes in six ?

How many twos in six ?

What is one half of six ?

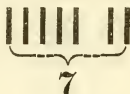
What two numbers will make six ?

What other two ?

Again, what other two ?

What three numbers will make six ?

What other three ?



How many marks ?

What figure is that ?

How many ones in seven ?

Which is the most, six or seven ?

Which is the least, six or seven ?

How much more is seven than six ?

than five ?

than four ?

than three ?

than two ?

than one ?



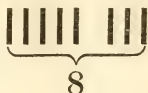
What two numbers will make seven ?

What other two numbers will make seven ?

Again, what other two ?

What three numbers will make seven ?

What other three ?



How many marks ?

What figure is that ?

How many ones in eight ?

Which is the most, seven or eight ?

Which is the least, seven or eight ?

How much more is eight than seven ?

than six ?

than five ?

than four ?

than three ?

than two ?

than one ?

---

How many fours in eight ?

How many twos in eight ?

What is one half of eight ?

What is one quarter of eight ?

What two numbers will make eight ?

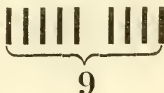
What other two ?

Again, what other two ?

What three numbers will make eight ?

What other three ?

Again, what other three ?



How many marks ?

What figure is that ?

How many ones in nine ?

Which is the most, eight or nine ?

Which is the least, eight or nine ?

How much more is nine than eight ?

than seven ?

than six ?

than five ?

than four ?

than three ?

than two ?

than one ?

---

How many threes in nine ?

What two numbers will make nine ?

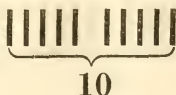
What other two ?

Again, what other two ?

What three numbers will make nine ?

What other three ?

Again, what other three ?



How many marks ?

What number is that ?

How many ones in ten ?

Which is the most, nine or ten ?

Which is the least, nine or ten ?

How much more is ten than nine ?

than eight ?

than seven ?

than six ?

than five ?

than four ?

than three ?

than two ?

---

How many twos in ten ?

What is half of ten ?

How many fives in ten ?

What two numbers will make ten ?

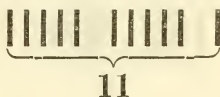
What other two ?

Again, what other two ?

What three numbers will make ten ?

What other three ?

Again, what other three ?



How many marks ?

What is the number ?

How many ones in eleven ?

Which is the most, ten or eleven ?

Which is the least, ten or eleven ?

How much more is eleven than nine ?

than eight ?

than six ?

than five ?

than three ?

than one ?

---

What two numbers will make eleven ?

What other two ?

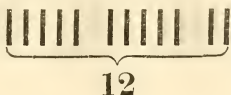
Again, what other two ?

What three numbers will make eleven ?

What other three ?

How many fives in eleven ?

(Ans. *Two fives, and one over.*)



How many marks ?

What is the number ?

How many ones in twelve ?

Which is the most, eleven or twelve ?

Which is the least, eleven or twelve ?

How much more is twelve than ten ?

than eight ?

than six ?

than four ?

than two ?

---

How many sixes in twelve ?

How many threes in twelve ?

How many fours in twelve ?

How many twos in twelve ?

What is half of twelve ?

What is quarter of twelve ?

What two numbers will make twelve ?

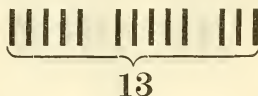
What other two ?

Again, what other two ?

What three numbers will make twelve ?

What other three ?

How many fives in twelve ?



How many marks ?

What is that number ?

How many ones in thirteen ?

Which is the most, twelve or thirteen ?

Which is the least, twelve or thirteen ?

How much more is thirteen than twelve ?

than ten ?

than eight ?

than six ?

than three ?

—

What two numbers are equal to thirteen ?

What other two ?

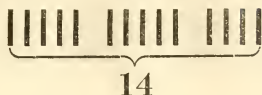
Again, what other two ?

What three numbers are equal to thirteen ?

What other three ?

How many fives in thirteen ?





How many marks ?

What is that number ?

How many ones in fourteen ?

Which is the most, twelve or fourteen ?

Which is the least, thirteen or fourteen ?

How much more is fourteen than twelve ?

than ten ?

than eight ?

than seven ?

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What number is half of fourteen ?

How many sevens in fourteen ?

How many twos in fourteen ?

What two numbers are equal to fourteen ?

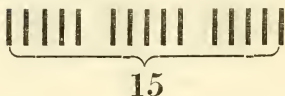
What other two ?

Again, what other two ?

What three numbers are equal to fourteen ?

What other three ?

How many fives in fourteen ?



How many marks ?

What number is this ?

How many ones in fifteen ?

Which is the most, fourteen or fifteen ?

Which is the least, twelve or fifteen ?

How much more is fifteen than fourteen ?

than twelve ?

than ten ?

than five ?

---

How many fives in fifteen ?

How many threes in fifteen ?

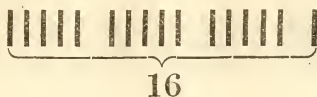
What two numbers are equal to fifteen ?

What other two ?

Again, what other two ?

What three numbers are equal to fifteen ?

What other three ?



How many marks ?

What number is that ?

How many ones in sixteen ?

Which is the most, fifteen or sixteen ?

Which is the least, fourteen or sixteen ?

How much more is sixteen than fourteen ?

than twelve ?

than ten ?

than eight ?

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What number is half of sixteen ?

What number is quarter of sixteen ?

How many eights in sixteen ?

How many fours ?

How many twos ?

What two numbers are equal to sixteen ?

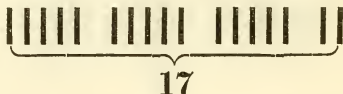
What other two ?

Again, what other two ?

What three numbers are equal to sixteen ?

What other three ?

How many fives in sixteen ?



How many marks ?

What number ?

How many ones in seventeen ?

Which is the most, sixteen or seventeen ?

Which is the least, fifteen or seventeen ?

How much more is seventeen than fifteen ?

than fourteen ?

than ten ?

than seven ?

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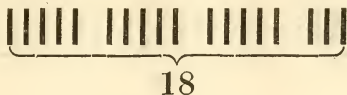
What two numbers are equal to seventeen ?

What other two ?

What other two ?

What three numbers ?

How many fives in seventeen ?



How many marks ?

What number is that ?

How many ones in eighteen ?

Which is the most, seventeen or eighteen ?

Which is the least, fifteen or eighteen ?

How much more is eighteen than sixteen ?

than fifteen ?

than twelve ?

than ten ?

than nine ?

than six ?

What is half of eighteen ?

How many nines in eighteen ?

How many sixes ?

How many threes ?

How many twos ?

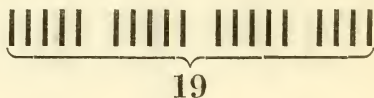
How many fives ?

What two numbers are equal to eighteen ?

What other two numbers ?

What three numbers ?

What other three ?



How many marks ?

What number is this ?

How many ones in nineteen ?

Which is the most, seventeen or nineteen ?

Which is the least, eighteen or nineteen ?

How much more is nineteen than sixteen ?

than fifteen ?

than ten ?

than five ?

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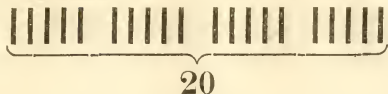
How many fives in nineteen ?

What two numbers are equal to nineteen ?

What other two ?

What three numbers ?

What other three ?



How many marks ?

What number is that ?

How many ones in twenty ?

How much more is twenty than eighteen ?

than fifteen ?

than ten ?

than five ?

---

What number is half of twenty ?

What number is quarter of twenty ?

How many tens in twenty ?

How many fives ?

How many fours ?

How many twos ?

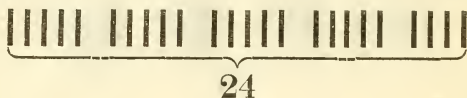
What two numbers are equal to twenty ?

What other two ?

Again, what other two ?

What three numbers ?

What other three ?



How many marks ?

What number ?

How many ones in twenty-four ?

How much more is twenty-four than twenty ?

than eighteen ?

than fifteen ?

than fourteen ?

than ten ?

than four ?

---

What number is half of twenty-four ?

What number is quarter of twenty-four ?

How many twelves in twenty-four ?

How many eights ?

How many sixes ?

How many fours ?

How many threes ?

How many twos ?

How many fives ?

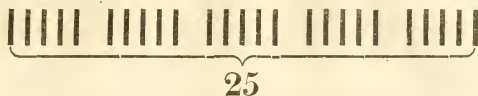
What two numbers are equal to twenty-four ?

What other two ?

What three numbers ?

What other three ?





How many marks ?

What number is that ?

How many ones in twenty-five ?

How much more is twenty-five than twenty ?  
than fifteen ?  
than ten ?  
than five ?

---

How many fives in twenty-five ?

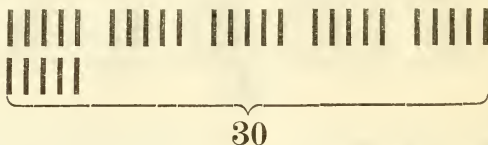
What two numbers are equal to twenty-five ?

What other two ?

Again, what other two ?

What three numbers are equal to twenty-five ?

What other three ?



How many marks ?

What number ?

How much more is thirty than twenty-five ?

than twenty ?

than fifteen ?

than ten ?

than five ?

---

What number is one half of thirty ?

How many tens in thirty ?

How many sixes in thirty ?

How many fives ?

How many threes ?

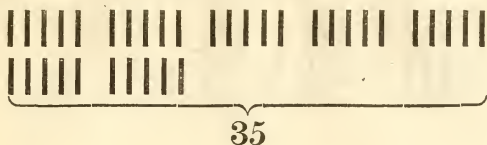
How many twos ?

What two numbers are equal to thirty ?

What other two ?

What three numbers ?

What other three ?



How many marks ?

What number is this ?

How many ones in thirty-five ?

How much more is thirty-five than thirty ?

than twenty-five ?

than twenty ?

—

How many fives in thirty-five ?

How many sevens in thirty-five ?

What two numbers are equal to thirty-five ?

What other two ?

What three numbers are equal to thirty-five ?

What other three ?



How many marks ?

What number ?

How many ones in thirty-six ?

How much more is thirty-six than thirty ?

than twenty-six ?

than twenty-four ?

than eighteen ?

than twelve ?

What number is half of thirty-six ?

What number is quarter of thirty-six ?

How many twelves in thirty-six ?

How many nines ?

How many sixes ?

How many fours ?

How many threes ?

How many twos ?

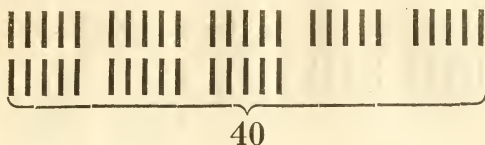
How many fives ?

What two numbers are equal to thirty-six ?

What other two ?

What three numbers are equal to thirty-six ?

What other three ?



How many marks ?

What number is that ?

How many ones in forty ?

How much more is forty than thirty-five ?

than thirty ?

than twenty ?

than ten ?

What number is half of forty ?

What number is quarter of forty ?

What number is three quarters of forty ?

How many tens in forty ?

How many eights ?

How many fives ?

How many fours ?

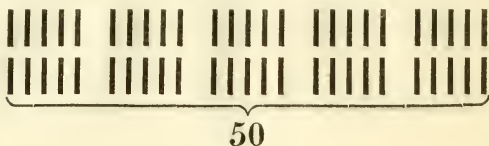
How many twos ?

What two numbers are equal to forty ?

What two others ?

What three numbers are equal to forty ?

What three others ?



How many marks ?

What number is this ?

How many ones in fifty ?

How much more is fifty than forty ?

than thirty ?

than twenty-five ?

than twenty ?

than ten ?

---

What is half of fifty ?

How many twenty-fives in fifty ?

How many tens ?

How many fives ?

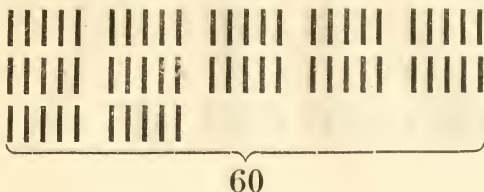
How many twos ?

What two numbers are equal to fifty ?

What other two ?

What three numbers are equal to fifty ?

What other three ?



How many marks ?

What number is that ?

How many ones in sixty ?

How much more is sixty than fifty ?

than forty ?

than thirty ?

than twenty ?

than ten ?

What number is half of sixty ?

What number is quarter of sixty ?

How many thirties in sixty ?

How many twenties ?

How many tens ?

How many fives ?

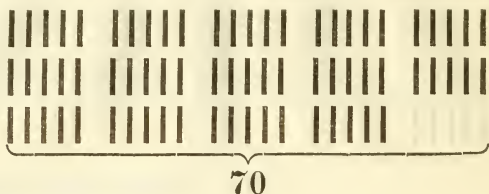
How many twos ?

What two numbers are equal to sixty ?

What other two ?

What three numbers are equal to sixty ?

What other three ?



How many marks ?

What number ?

How many ones in seventy ?

How much more is seventy than sixty ?

than fifty ?

than forty ?

than thirty ?

than twenty ?

than ten ?

What number is half of seventy ?

How many tens in seventy ?

How many fives ?

How many twos ?

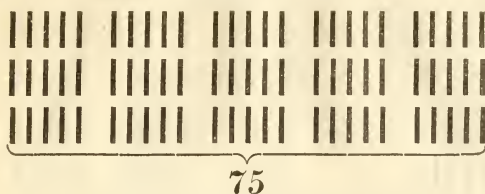
What two numbers are equal to seventy ?

What other two ?

What three numbers are equal to seventy ?

What other three ?





How many marks ?

What is that number ?

How many ones in seventy-five ?

How much more is seventy-five than seventy ?

than fifty ?

than twenty-five ?

---

How many twenty-fives in seventy-five ?

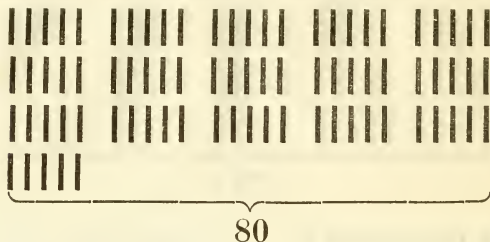
How many fives in seventy-five ?

What two numbers are equal to seventy-five ?

What other two ?

What three numbers are equal to seventy-five ?

What other three ?



How many marks ?

What is that number ?

How many ones in eighty ?

How much more is eighty than seventy ?

than sixty ?

than fifty ?

than forty ?

than thirty ?

---

What is one half of eighty ?

What is one quarter of eighty ?

How many forties in eighty ?

How many twenties ?

How many tens ?

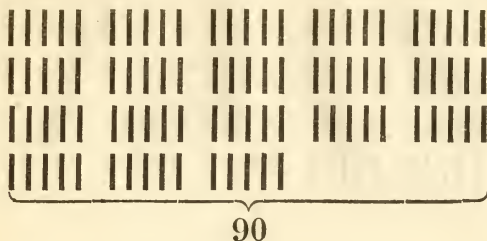
How many fives ?

What two numbers are equal to eighty ?

What other two ?

What three numbers are equal to eighty ?

What other three ?



How many marks ?

What number ?

How many ones in ninety ?

How much more is ninety than eighty ?

than seventy ?

than sixty ?

than forty ?

—

How many thirties in ninety ?

How many tens in ninety ?

How many fives in ninety ?

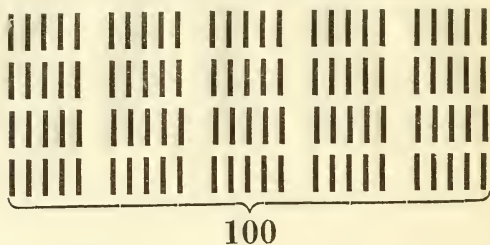
What is one half of ninety ?

What two numbers are equal to ninety ?

What other two ?

What three numbers are equal to ninety ?

What other three ?



How many marks ?

What is that number ?

How many ones in one hundred ?

How much more is one hundred than ninety ?

than eighty ?

than seventy ?

than sixty ?

than fifty ?

---

What is one half of a hundred ?

One quarter ?

How many fifties in a hundred ?

How many twenty-fives ?

How many tens ?

How many fives ?

What two numbers added together make a  
hundred ?

What other two ?

What three numbers ?

|    |    |    |    |    |    |    |    |    |     |
|----|----|----|----|----|----|----|----|----|-----|
| 1  | 11 | 21 | 31 | 41 | 51 | 61 | 71 | 81 | 91  |
| 2  | 12 | 22 | 32 | 42 | 52 | 62 | 72 | 82 | 92  |
| 3  | 13 | 23 | 33 | 43 | 53 | 63 | 73 | 83 | 93  |
| 4  | 14 | 24 | 34 | 44 | 54 | 64 | 74 | 84 | 94  |
| 5  | 15 | 25 | 35 | 45 | 55 | 65 | 75 | 85 | 95  |
| 6  | 16 | 26 | 36 | 46 | 56 | 66 | 76 | 86 | 96  |
| 7  | 17 | 27 | 37 | 47 | 57 | 67 | 77 | 87 | 97  |
| 8  | 18 | 28 | 38 | 48 | 58 | 68 | 78 | 88 | 98  |
| 9  | 19 | 29 | 39 | 49 | 59 | 69 | 79 | 89 | 99  |
| 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

The above may be executed on the board by the teacher. Or, by the scholars of a class, each in rotation making a number.

As the teacher points, the scholars pronounce the number.

Take the numbers in their regular order.

Take them across the board from left to right.

Take them from right to left.

Take them from bottom to top.

Take them at random.

With two pointers, two numbers may be pointed at simultaneously, and the largest or the smallest required—or the difference.

Divide the board into squares. Then call upon the scholars to name any number from one to twelve, telling them that you will write twice that number on the board. Having filled the squares, for instance, thus,

|    |    |    |    |
|----|----|----|----|
| 4  | 12 | 6  | 10 |
| 2  | 8  | 16 | 20 |
| 18 | 14 | 24 | 22 |
| 6  | 10 | 12 | 4  |

point to any number, and ask,

What is half of that number ?

or,

How many twos in that number ?

Divide the board into squares. Then call upon the scholars to name any number from one to twelve, telling them that you will write three times that number on the board. Having filled the squares, for instance, thus,

|    |    |    |    |
|----|----|----|----|
| 9  | 36 | 27 | 3  |
| 12 | 15 | 33 | 30 |
| 18 | 21 | 6  | 24 |
| 3  | 33 | 9  | 12 |

point to any number, and ask,

What is that three times of?

or,

How many threes in that number?

---

Have the same kind of exercise, multiplying by four. Another, by five; and so on, up to ten.

Divide the board into squares. Then call upon the scholars to name any number from one to one hundred, telling them that you will put it down with the addition of three. The squares being filled, for instance, thus,

|    |    |    |    |
|----|----|----|----|
| 58 | 4  | 28 | 63 |
| 73 | 81 | 49 | 27 |
| 8  | 6  | 50 | 31 |
| 81 | 19 | 76 | 23 |
| 99 | 44 | 56 | 79 |

point to the numbers and ask,

What number is three less than — ?

---

Have the same kind of exercise with the addition of other numbers up to ten.



Divide the board into squares. Call upon the scholars to mention any number which is less than twenty-five. Let the teacher insert the number which is the difference between that mentioned and twenty-five. The squares being filled out, for instance, thus,

|    |    |    |    |    |
|----|----|----|----|----|
| 3  | 20 | 6  | 8  | 10 |
| 2  | 4  | 18 | 15 | 9  |
| 23 | 1  | 5  | 11 | 13 |
| 19 | 21 | 14 | 12 | 7  |
| 10 | 16 | 24 | 17 | 22 |

point to the squares, and inquire,

What number is necessary to make up twenty-five?

Divide the board into squares. Call upon the scholars to mention any number which is less than fifty. Let the teacher insert the number which is the difference between that mentioned and fifty. The squares being filled out, for instance, thus,

|    |    |    |    |    |
|----|----|----|----|----|
| 35 | 15 | 18 | 36 | 6  |
| 4  | 25 | 40 | 10 | 7  |
| 8  | 12 | 47 | 11 | 2  |
| 29 | 30 | 44 | 28 | 32 |
| 19 | 27 | 16 | 9  | 46 |

point to the squares and inquire,

What number is necessary to make up fifty?

---

Have the same kind of exercise, using numbers up to a hundred.

A class being seated before a black board, the first scholar goes to it and writes in the left hand upper square any number that is under ten ; the next scholar goes and writes in the square on the right the number which the addition of three will make. And so on through the class, each scholar adding three to the number of the preceding, thus,

|    |    |    |    |    |
|----|----|----|----|----|
| 3  | 6  | 9  | 12 | 15 |
| 18 | 21 | 24 | 27 | 30 |

Have the same kind of exercise as the preceding, only adding other numbers.

Let the first scholar write any number from ninety to a hundred. The next, write seven less, &c., thus,

|    |    |    |    |    |
|----|----|----|----|----|
| 95 | 88 | 81 | 74 | 67 |
| 60 | 53 | 46 | 39 | 32 |

A class, say of six scholars, being before the black board, divide it into squares, so as to have six across. Let the first scholar write a number in the left hand upper square; let the second scholar write in the next square the same number increased by two; let the third scholar add three to the number of the second scholar, and fill out the third square, and so on. Thus each scholar after the first, adds the number of his place to the preceding number.

|    |    |    |    |    |    |
|----|----|----|----|----|----|
| 5  | 7  | 10 | 14 | 19 | 25 |
| 7  | 9  | 12 | 16 | 21 | 27 |
| 9  | 11 | 14 | 18 | 23 | 29 |
| 13 | 15 | 18 | 22 | 27 | 33 |

Let the scholars put down any number of which they can tell how much the half is. Fill the board in this way. Then point and require them to mention the half.

Let them put down any number of which they can tell how much its quarter is.

Or, of which they can tell how many threes there are in it—fives—tens.

Think of a number that is less than ten for me to write in one corner of the board. Another for this corner. Another. Another.

|   |    |   |
|---|----|---|
| 5 |    | 8 |
|   | 25 |   |
| 9 |    | 3 |

Give the amount of the four corners, to be put in the centre.

How much are five and eight? Five and nine? Five and three? Eight and three? Eight and nine?

Difference between five and eight? Between five and nine? Five and three? Eight and nine? Eight and three?

Five from twenty-five leaves how much?

Eight from twenty-five?

Nine from twenty-five?

Three from twenty-five?

How many fives in twenty-five?

How many tens?

How many twenty-fives in a hundred?

---

Divide the board into squares of four across, and as many, perpendicularly, as the board will admit. Write in the left hand column of squares numbers within a given range. Require the

scholars to fill the three adjoining squares with numbers which added together are equal to the number in the left hand square.

|    |    |    |    |
|----|----|----|----|
| 18 | 4  | 8  | 6  |
| 31 | 20 | 10 | 1  |
| 45 | 5  | 15 | 25 |
| 60 | 30 | 20 | 10 |
| 71 | 50 | 10 | 11 |

Squares three across. Fill the centre tier with numbers. Call for numbers which are seven less for insertion in the left hand tier; and those of seven more for the right hand.

|    |    |    |
|----|----|----|
| 11 | 18 | 25 |
| 28 | 35 | 42 |
| 8  | 15 | 22 |
| 21 | 28 | 35 |
| 47 | 54 | 61 |

Write the figures one to ten in a column, and connect them with a brace. Write the word *times* on the left, and precede it with any figure from one to ten. If five is inserted, require the scholars to read thus: Five times one, five times two, &c., and to insert on the right the suitable numbers.

|         |   |          |
|---------|---|----------|
| 5 times | { | 1 are 5. |
|         |   | 2 — 10.  |
|         |   | 3 — 15.  |
|         |   | 4 — 20.  |
|         |   | 5 — 25.  |
|         |   | 6 — 30.  |
|         |   | 7 — 35.  |
|         |   | 8 — 40.  |
|         |   | 9 — 45.  |
|         |   | 10 — 50. |

### NUMERAL LETTERS.

---

Make V in the centre of the board, and ask, What does that stand for? Add an I, so as to make VI. What does that stand for? Add another I and there is VII; add another I and there is VIII; add an X on the left and there is XVIII; add another X and there is XXVIII; add another X and there is XXXVIII; add L and there is LXXXVIII; add C and there is CLXXXVIII; add another C and there is CCLXXXVIII; add another C and there is CCCLXXXVIII; add another C and there is CCCCLXXXVIII; add D and there is DCCCC LXXXVIII; add M and there is MDCCCC LXXXVIII. At each change inquire, What does that stand for?

Make V; add I on the left, and there is IV; rub out the I, and put it on the other side, and there is VI.

Make X; add I on the left, and there is IX; change the place of the I and there is XI; add



V and there is XIV ; rub out the V and put an X and there is XIX ; add an L and there is LXIX.

Make L ; prefix an X and there is XL ; change the L and there is LX.

Make C ; prefix an X and there is XC ; change the X and there is CX.

Two classes may be exercised thus ; a scholar from one goes and writes the figures of any number he pleases. A scholar from the other goes and puts down the numeral letters which represent that number.

READING AND SPELLING.

---

Instead of confining the youngest scholars to the printed page, it is earnestly recommended to teachers, that they frequently take six or eight of them at a time before the black board.

Let the teacher make in the printed character three or four words, thus,

m a n

b o y

g i r l

and then in a kind, familiar way, assist the little learners in acquiring the ability to read them ; or, what is the same thing, an ability to connect thought and sound with the *printed form* as well as with the *living object*.

This being accomplished, add another word.

m a n

b o y

g i r l

h e a d

Then another.

**m a n**

**b o y      e y e      g i r l**

**h e a d**

Add, and repeat, thus,

**g i r l      h e a d      b o y**

**m a n**

**b o y      e y e      g i r l**

**h e a d**

**m a n      n o s e      e y e**

Let the scholars in rotation have the pointing stick, and with it read the words they know.

☞ The idea that a word *speaks* is pleasant to the little learner. ‘What does that say?’ ‘That says, boy.’ ‘That says, girl.’

After several whole words are completely mastered in this way, a beginning may be made with the names of the letters.

☞ In spelling from the board it will be found pleasing and profitable to incorporate a little bodily action into the exercise. For instance, the teacher points to the word *man*, and they all pronounce it. The teacher says, ‘Spell it,’ and on her pointing to *m*, they give the name, at the same time putting the ends of the fingers of the right hand into the hollow of the left hand; and so with each of the other letters; after which, on pronouncing the word, let them bring the palms of the hands together with *a single simultaneous report!*

To make them attentive and accurate, sometimes go back before pointing to the last letter, thus, m-a-m-a-n, man!

When the words of a lesson consist of the names of parts of the body, as head, eye, mouth, leg, &c., at the pronunciation which occurs before spelling, let the children put the hand or finger upon these objects, and then at the naming of the letters proceed as before.

Sometimes write on the board from the dictation of the scholars, thus,

On telling them you wish to write *boy*, ask, What is the first letter? Having put that down, What is the next? &c.\*

Sometimes, purposely make a wrong letter, and see if they will detect it. Ask them, Is that right? What letter is it?

Let the scholars, as soon as they are willing to try, see what they themselves can do with the chalk and board. And the sooner they become able to make a few letters, the more rapid will be their progress.

---

#### POSITIONS OF THE ORGANS OF SPEECH, AND KINDS OF SOUND.

Children will be interested and benefited by having their attention directed to the various positions of the mouth, tongue, &c., in uttering the letters, and to the different kinds of sound

---

\* "I assemble those about me who are unable to write, and make them dictate to me, and see me write, and let them instruct me how to spell and arrange the words."

*Mrs. Tuckfield on School Instruction.*

produced. Write on the board several distinctions, thus,

Mouth open.<sup>1</sup>

Mouth closed.<sup>2</sup>

Tip of the tongue at the roof of the mouth.<sup>3</sup>

Nose sound.<sup>4</sup>

Hissing sound.<sup>5</sup>

Lower lip against upper teeth.<sup>6</sup>

Throat sound.<sup>7</sup>

Hard breathing or whispering.<sup>8</sup>

Quivering sound.<sup>9</sup>

Hushing sound.<sup>10</sup>

Lisping.<sup>11</sup>

Puckering the lips.<sup>12</sup>

Point to the above, and call for letters and sounds. For further illustrations, see chapter on English Utterance, in '*Spelling and Thinking*.'

---

<sup>1</sup> a, e, i, o, u, y.

<sup>2</sup> b, p, m.

<sup>3</sup> d, t, l, n, g, j.

<sup>4</sup> m, n.

<sup>5</sup> c, s, z.

<sup>6</sup> f, v, ph.

<sup>7</sup> c, k, q, g.

<sup>8</sup> h, wh.

<sup>9</sup> r.

<sup>10</sup> sh.

<sup>11</sup> th.

<sup>12</sup> w.

ANALYZING THE SOUNDS OF WORDS.

Sometimes when there is a collection of words on the board, let the teacher *underscore* all the vowels excepting those which are silent. Then on pointing to a word, let the scholars pronounce it, and immediately after, give its vowel sound or sounds; that is, pronounce the word as far as it can be done without the consonants. Thus, if the words are house, portico, gate, door, threshold, step, arch, number, the vocal exercise will be,

house, ou

portico, o, i, o.

gate, a.

door, oo.

threshold, e, o.

step, e.

arch, a.

number, u, e.

At another time take the consonants and leave the vowels, which will make the exercise like this:

house, h, s.

portico, p, r, t, c.

gate, g, t.

door, d, r.

threshold, thr, sh, ld.

step, st, p.

arch, rch.

number, n, m, b, r.

Take a sentence, thus,

How bright the sun is!

Read the vowels,

ow i e u i

Or, the consonants,

H br t th s n s

A short daily exercise of this kind in a primary school will be found of incomparable value in producing good readers. It gives a flexibility to the organs of speech, and produces a clearness, neatness, and accuracy of articulation which are unattainable in any other way. See the chapter on English Utterance, in '*Spelling and Thinking.*'

---

### GYMNASTICS.

Let the scholars sometimes put on the board the words used by the teacher in directing the simultaneous physical exercises of the school. For instance,

stand

turn

sit

stoop



---

|               |                |
|---------------|----------------|
| right hand up | together       |
| left hand up  | left shoulder  |
| down          | right shoulder |
| reach         | fold arms      |
| knuckles      | unfold         |
| palms         | fold behind    |

and so forth; which the teacher will use by pointing instead of speaking.

---

#### CAPTIONS FOR THE BLACK BOARD.

Print at the top of the board a general subject, thus,

## Parts of the body.

Then let the scholars fill the board with as many suitable words as they can recollect.

Other captions.—

Parts of dress.

Things used in making clothes.

Work connected with dress.

Parts of a house.

Things to make a house with.

Things in the parlor.  
Things in the kitchen.  
Things in the cellar.  
Things in the chamber.  
Things in the garret.  
Things on the breakfast table.  
Things on the dinner table.  
Things on the supper table.  
Work done in the kitchen.  
Any thing about bread.  
Vegetable food beside bread.  
Animal food.  
Any thing which grows on a tree.  
Any thing which grows on a bush.  
Any thing which grows on a vine.  
Any thing that smells good.  
Any thing about books.  
Any thing about writing.  
Any thing about our school.  
Any thing about the church.  
Any thing about a farm.  
A farmer's tools.  
Work done by farmers.  
Different trades.  
Things in a carpenter's shop.  
Things in a blacksmith's shop.  
Any thing which has a handle.

Any thing that has legs.  
Any thing that has wheels.  
Any thing that has a lid or cover.  
All kinds of noises.  
Any thing that will burn.  
Any thing that will melt.  
White things.  
Black things.  
Red things.  
Green things.  
Great things.  
Little things.  
Heavy things.  
Light things.  
Hard things.  
Soft things.  
Round things.  
Square things.  
Bright things.  
Crooked things.  
Good things.  
Bad things.  
Days of the week.  
Months of the year.  
Names of scholars.  
Names of streets.

Write at the top of the board the beginning of a sentence, and let the scholars write below words which will answer to complete it.

A man can

A dog can

A horse can

Birds can

With our eyes we can

With our mouth we can

With our hands we can

With our feet we can

I must not

I must be

A pound of

A quart of

A peck of

A bushel of

A barrel of

A hogshead of

A yard of

A sample of

A picture of

A dozen

A hundred

Iron is used to make

Gold is used to make

Silver is used to make

Wood is used to make

Glass is used for

Leather is used for

Salt is used for

Cotton is used for

---

He is a                      boy.

She is a                    girl.

That is a                  house.

That is a                  thing.

With what words can these blanks be filled?

---

WORDS ALIKE IN SOUND, &c.

Dictate to the scholars sentences like the following, they to write them on the board. Or, write yourself the sentence, leaving a blank for the italic word, and requiring them to give the proper spelling of it.

A shoemaker's *awl*.

They *all* said so.

This is good *bread*.

He is a well-*bred* boy.

Who *sent* you there ?

He gave me a *cent*.

My *dear* mother.

He ran like a *deer*.

---

### OPPOSITES.

Write on the board a column of words, thus,

kind

quiet

generous

diligent

modest

peaceful

beautiful

grateful

and require to be written against each its opposite in meaning.

---

### DIVIDING WORDS.

Call the attention of scholars to the division of words in books, where a part of a word is at the end of one line, and the remainder at the beginning of the next. Let them know that some words must never be divided in this way ; and that those which may be divided, must

have the separation made in a proper place. Give them words to divide on the board, thus,

atten-  
tion  
schol-  
ars  
re-  
mainder

sep-  
aration  
begin-  
ning  
yester-  
day

---

#### THE APOSTROPHE.

Dictate words which have the apostrophe, and let the scholars put them on the board, thus,

Father's horse.  
Sister's bonnet.  
John's sled.

What's that ?  
I'll try.  
Who's there ?

---

#### ABBREVIATIONS.

Let one scholar write an abbreviation, and the next scholar write at the side the whole word, thus,

|       |              |
|-------|--------------|
| P. O. | Post-office. |
| P. M. | Post-master. |

|       |            |
|-------|------------|
| Hon.  | Honorable. |
| Doct. | Doctor.    |
| Gen.  | Genesis.   |

---

## INFLECTIONS.

Let the teacher write in each of five or six different places on the board, a primitive word, and require the scholars to add to each some of its derivatives. Thus for one place, the teacher having written *noble*, the scholars may write *nobly*, *nobler*, *noblest*, *nobleness*, *nobleman*.

---

## MISPRONUNCIATIONS.

Take one of the most common faults of the school in regard to pronunciation, and by putting on the board one or two of the words in which they make the fault, drill them daily until the error is rooted up. If, for instance, it is a general habit to leave off the *g* in the syllable *ing*, take one day the word *morning*, another day the word *learning*, &c.



---

STOPS AND MARKS.

Let them be made on the board, and then on their being pointed at, require the scholars to tell their names and uses. A scholar from one class might make the character, and then a scholar from another class make at its side the word.

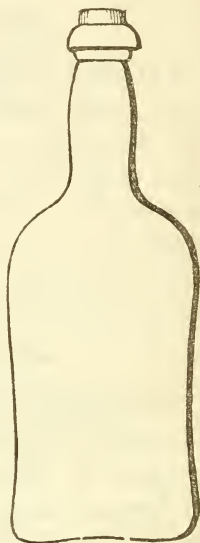
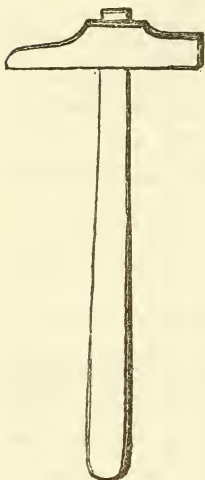
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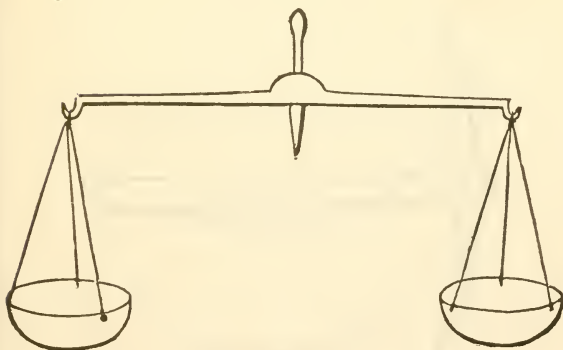
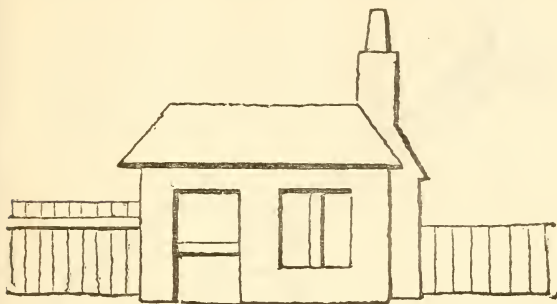
## OUTLINES OF OBJECTS.

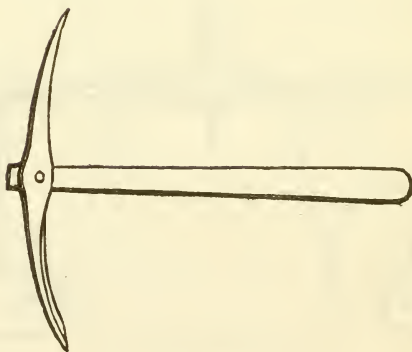
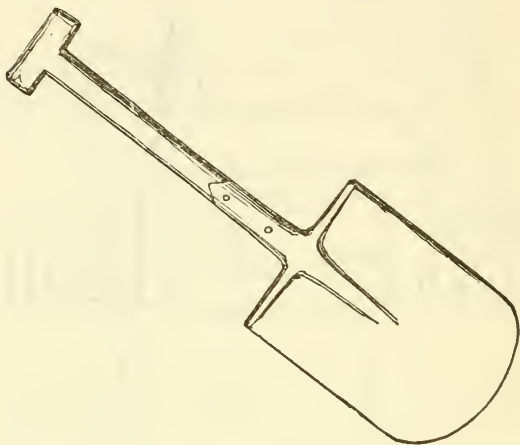
After placing one of the following outlines at the top of the board, let the capacity of the children for thinking and spelling, be exercised in putting down as many of the names of objects, qualities, actions, uses, &c. &c. as they can bring to mind in connection with it.

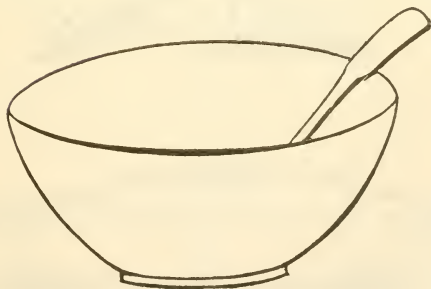
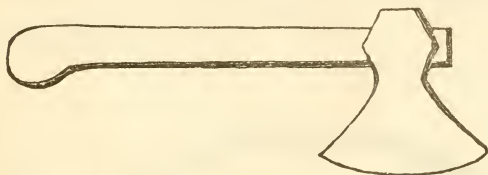
These outlines are taken, with permission, from a book entitled "Drawing for Young Children; containing one hundred and fifty Drawing Copies, and numerous exercises," published by J. H. Francis, Boston.

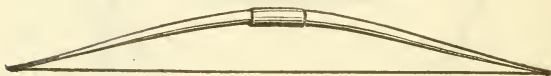
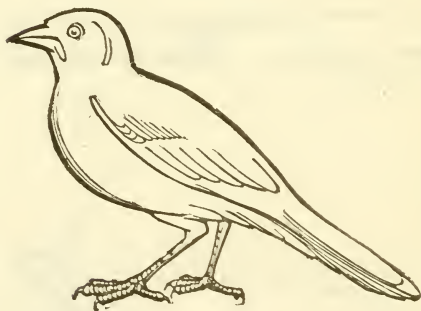
It is hoped that after using the specimens here presented, teachers will be led to avail themselves of the extensive variety which is to be found in this valuable book.

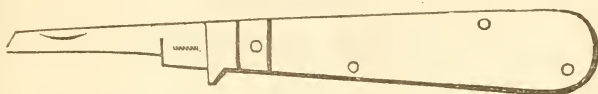












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